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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,034	01/23/2004	Chien-Ming Chu	B-5364 621678-0	7931
36716	7590	11/01/2006	EXAMINER	
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			AMADIZ, RODNEY	
			ART UNIT	PAPER NUMBER
			2629	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,034

Applicant(s)

CHU ET AL.

Examiner

Rodney Amadiz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/28/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) (Specification Pages 1-2 and Figures 1-3) in view of Liao (USPGPUB 2004/0021681—herein referred to as "Liao").

As to **Claim 1**, AAPA teaches a portable electronic device comprising: a main housing having opposite front and rear ends (***AAPA—Pg. 1, lines 15-16 and Fig. 1, Reference Numbers 101 and 100***), and a top surface provided with a keyboard unit thereon (***AAPA—Fig. 1, Reference Number 13***), said keyboard unit including a set of control keys (***AAPA—Pg. 1, lines 20-21***), each of said control keys being operable so as to enable said portable electronic device to execute a control function associated with an operated one of said control keys (***AAPA—Pg. 2, lines 18-20***); a cover body having a coupling side, and opposite first and second surfaces (***AAPA—Pg. 1, lines 21-22***), said first surface being provided with a display panel thereon (***AAPA—Fig. 1,***

Reference Number 16); a pivot unit coupled to said rear end of said main housing and said coupling side of said cover body such that said cover body is pivotable about a longitudinal axis (**AAPA—Pg. 1, lines 24-27**), which is parallel to said top surface of said main housing, and about a vertical axis transverse to said top surface of said main housing, thereby permitting operation of said portable electronic device in one of a first mode (**AAPA—Pg. 2, lines 1-5**), where an angle is formed between said top surface of said main housing and said first surface of said cover body and where said cover body permits access to said keyboard unit (**AAPA—Pg. 2, lines 5-8**), and a second mode, where said cover body is superimposed on said main housing such that said second surface of said cover body faces toward said top surface of said main housing and such that said cover body denies access to said keyboard unit (**AAPA—Pg. 2, lines 9-14**).

AAPA fails to teach a virtual control key module for configuring said display panel to show a set of simulated control keys thereon, said simulated control keys having distinct functions assigned thereto and being available for selection so as to enable said portable electronic device to execute the function associated with a selected one of said simulated control keys. Examiner cites Liao to teach a virtual control key module for configuring a set of simulated control keys on a display panel (**Liao—Fig. 10, Reference Number 1003 and Fig. 2, note function keys 207, 209, 213, 215, 217, 219, F1-F1, Tab, Esc, Ctrl...etc. and Pg. 4, ¶0029-0030 and Pg. 5, ¶0034**). Note that it is inherent that the simulated control keys, as in every keyboard, have distinct functions assigned thereto and are available for selection so as to enable said portable electronic device to execute the function associated with a selected one of said

simulated control keys. For instance, see figure Fig. 5, wherein the PDA (Reference Number 211) function key is pressed and a distinct function appears on the screen. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a virtual key module for configuring simulated control keys on a display panel as taught by Liao in the portable electronic device taught by AAPA so that it may facilitate the interaction between the user and the computer OS (*Liao—Pg. 3, ¶ 0027*).

As to **Claim 2**, AAPA teaches the display panel to be a touch-control display panel (*AAPA—Fig. 1, Pg. 1, line 23 and Reference Number 16*). AAPA, however, does not teach that the selection among said simulated control keys is conducted by pressing of said touch-control display panel at a location registered with a selected one of said simulated control keys. Examiner cites Liao to teach that selection among said simulated control keys is conducted by pressing the touch-control display panel at a location registered with a selected one of said simulated control keys (*Liao—Fig. 2, note control keys 207, 209, 213, 215, 217, 219, F1-F1, Tab, Esc, Ctrl...etc., see also Pg. 3 and 4 ¶'s 0028 and 0030*).

As to **Claim 3**, AAPA fails to teach the selection among said simulated control keys shown on said display panel is conducted using an external mouse device coupled electrically to said portable electronic device. Examiner cites Liao to teach an external mouse coupled electrically to the portable device for selecting the simulated control keys shown on the display panel (*Liao—Pg. 3, ¶'s 0027 and 0028*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to

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incorporate the use of a mouse to select simulated control keys as taught by Liao in the portable electronic device taught by AAPA so that users who prefer inputting data the conventional way may be satisfied (*Liao—Pg. 3, ¶ 0027*).

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Liao as applied to claims 1-3 above, and further in view of Celi, Jr. (U.S. Patent 5,261,079—herein referred to as “Celi”).

As to **Claim 4**, AAPA fails to teach a keyboard controller coupled electrically to said keyboard unit. Examiner takes Official Notice that it is well known in the art to have a keyboard controller coupled electrically to said keyboard unit. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to electrically couple a keyboard controller to a keyboard unit so that the user may have a means as to control the keyboard.

Furthermore, AAPA fails to teach said virtual control key module loaded with a virtual key generating program for configuring said display panel to show said simulated control keys thereon when said virtual key generating program is executed. Examiner cites Liao to teach said virtual control key module loaded with a virtual key generating program for configuring said display panel to show said simulated control keys thereon when said virtual key generating program is executed (*Liao, Pg. 4, ¶ 0029-0030 and Pg. 5, ¶0034 and Fig. 2*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of virtual key generating program as taught by Liao in the portable electronic device taught by AAPA

in order to facilitate the interaction between the user and the electronic device; thereby allowing the user familiar means to input data in the electronic device.

AAPA also fails to teach said trunk interface being provided with a set of execution paths corresponding to the functions assigned to said simulated control keys; the function corresponding to a selected one of said simulated control keys being executed through one of said execution paths corresponding to the selected one of said simulated control keys. Examiner cites Liao to teach said trunk interface being provided with a set of execution paths corresponding to the functions assigned to said simulated control keys (*Liao—See Fig. 2 and note Control keys 207, 209, 213, 215, 217 and 219; See Figs. 3-9 to note the execution paths corresponding to the functions assigned to the simulated control keys*); the function corresponding to a selected one of said simulated control keys being executed through one of said execution paths corresponding to the selected one of said simulated control keys (*Liao—Pg. 4, ¶0029-0030 and Pg. 5, ¶0034 and Fig. 2 and note Control keys 207, 209, 213, 215, 217 and 219; See Figs. 3-9 to note the execution paths corresponding to the functions assigned to the simulated control keys*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a trunk interface with a set of execution paths corresponding to the functions assigned to the simulated control keys as taught by Liao in the portable electronic device taught by AAPA so that each simulated control key may have a distinct function that takes appropriate action and works properly when pressed.

Finally, AAPA, as modified by Liao, fails to teach a register coupled electrically to said keyboard controller for storing operating status of an activated one of said control keys on said keyboard unit and an updated control result associated with the activated one of said control keys on said keyboard unit therein; a trunk interface coupled electrically to said register and operating status and an updated control result associated with the selected one of said simulated control keys being stored in said register via said one of said execution paths corresponding to the selected one of said simulated control keys. Examiner cites Celi to teach a register coupled electrically to said keyboard controller for storing operating status of an activated one of said control keys on said keyboard unit and an updated control result associated with the activated one of said control keys on said keyboard unit therein wherein the operating status and updated control result associated with the selected one of said simulated control keys stored in said register via said one of said execution paths correspond to the selected one of said simulated control keys (***Celi—Fig. 3, Reference Number 40 and Col. 6, lines 28-37***). Celi also teaches a trunk interface coupled electrically to said register (***Celi—Fig. 3, Reference Number 36 and Col. 6, lines 38-50***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a single register for both virtual and hardware keyboards as taught by Celi in the modified portable electronic device taught by AAPA and Liao in order to accurately record and store the actions and functions that are activated by the keys on the keyboards. Furthermore, at the time the invention was made, it would have been to a person of ordinary skill in the art to electrically couple the register to the trunk

interface as taught by Celi in the modified portable electronic device taught by AAPA and Liao in order to have the actions and function of the virtual keyboard accurately recorded in the register; thereby allowing the device to function properly.

As to **Claim 5**, AAPA, as modified by Liao, teaches the execution paths vary according to the functions assigned to said simulated control keys shown on said display panel (*Liao—Pg. 4, ¶0029-0030 and Pg. 5, ¶0034 and Fig. 2 and note Control keys 207, 209, 213, 215, 217 and 219; See Figs. 3-9 to note the varying execution paths corresponding to the functions assigned to the simulated control keys*).

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Amadiz whose telephone number is (571) 272-7762. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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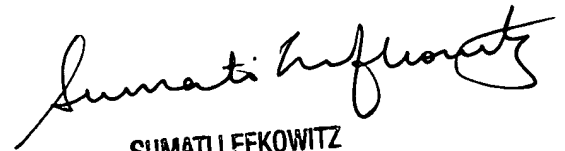
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10/23/06

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